

REMARKS

Status of the Application

Claims 1-43 were pending. The Office Action rejected claims 1-11 and 13-43, and objected to claim 12. By way of this amendment, claims 1, 10, 11, 15, 19, 22, 27, 35 and 41 are amended, and claim 12 is canceled. Thus, claims 1-11 and 13-43 are now pending.

Allowable Subject Matter

Applicants acknowledge with appreciation the indication that dependent claim 12 would be allowable if rewritten in independent form.

Dependent claim 12 (now canceled) recited “generating a transmit signal includes determining a difference between said common channel interference component and said second data.” Language similar to claim 12 has been added to independent claims 1, 15, 19, 22 and 41. For example, claim 1 now recites “wherein generating said transmit signal includes determining a common channel interference component; and determining a difference between said common channel interference component and said second data.” Similarly, claim 15 now recites “wherein said transmit signal generator includes a subtractor to generate a difference between said common channel interference component and said dedicated data.”

Additionally, independent claims 27 and 35 have also been amended to include language similar to dependent claim 12, but in the context of a “composite interference component” related to “first data to be delivered to user devices associated with a first class”, wherein transmit signals to be transmitted to user devices associated with the first class are generated “without using dirty paper techniques.” For example, claim 27 now recites “wherein generating said transmit signal to be transmitted to user devices associated with said second class includes: determining a composite interference component based on said first data; and subtracting said composite interference component from said second data.”

These amendments have been made merely to expedite allowance of the application. Applicants reserve the right to pursue claims without the elements of or similar to claim 12 in a continuing application.

Interview Summary

Applicants would like to thank the Examiner for the courtesy of the telephone interview conducted on September 30, 2008. Examiner DSouza and the undersigned discussed the rejections of claims 15, 27 and 35. With regard to the rejections under 35 U.S.C. §103, no agreement was reached. With regard to the rejection of claim 27 under 35 U.S.C. §112, first paragraph, the Examiner indicated that he would reconsider the rejection.

Additionally, Applicants would like to thank the Examiner for the courtesy of the telephone interview conducted on November 7, 2008. Examiner DSouza and the undersigned discussed the amendments set forth in the present response. The Examiner indicated that he would perform a further search in light of the amendments.

Rejections under 35 U.S.C. §112

Claims 27-34 were rejected under 35 U.S.C. §112, first paragraph as allegedly failing to comply with the enablement requirement. Applicants respectfully traverse the rejection.

With regard to claim 27, the Office Action alleged that the specification does not adequately describe how to “generat[e] transmit signals to be transmitted to user devices associated with said second class using said first data, said second data, and said channel information” as recited in claim 27. Applicants respectfully disagree.

Claim 27 generally relates to a method for performing transmitter-side interference mitigation to mitigate interference in signals sent to user devices associated with a second class (“second transmit signals”) caused by signals sent to user devices associated with a first class (“first transmit signals”). Claim 27 recites “generating transmit signals to be

transmitted to user devices associated with said second class.” In claim 27, data that is intended to be delivered to the “user devices associated with said second class” is referred to as “second data.” Thus, the second transmit signals are generated “using ... said second data.” But as mentioned above, the first transmit signals will tend to interfere with the second transmit signals, and the first transmit signals deliver the first data to the user devices associated with said first class. Thus, in order to mitigate interference in the second transmit signals that will be caused by the first transmit signals, claim 27 specifies that the second transmit signals are generated also using the first data.

For example, Fig. 6 illustrates an embodiment of an apparatus that can implement the generating second transmit signals element of claim 27. As can be seen in Fig. 6, the second transmit signals (i.e., output of block 74) are generated using both second data (new user data) and first data (old user data).

Thus, Applicants respectfully submit that claim 27 is enabled by the present application and that no changes are required to the specification. Withdrawal of the rejection of claims 27-34 is respectfully requested.

Claims 41-43 were rejected under 35 U.S.C. §112, second paragraph as allegedly being indefinite because the Office Action asserted that it is not clear whether interference mitigation is done on the transmitter side or receiver side. Applicants respectfully disagree with the Office Action and believe that the rejection under 35 U.S.C. §112, second paragraph is in error. In order to expedite allowance of the application, however, Applicants have amended claim 41 to recite “generating at a transmitter, using common channel information, a transmit signal for transmission to a remote user device via a dedicated channel, wherein the transmit signal is pre-configured at the transmitter so that common channel interference is mitigated within said remote user device upon reception. Applicants respectfully submit that these amendments to claim 41 are not narrowing in that they merely make more explicit what was already explicitly or implicitly recited in claim 27. Withdrawal of the rejection of claims 41-43 is respectfully requested.

Rejections under 35 U.S.C. §103

Claims 1-11 and 13-43 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over various combinations of U.S. Patent Application Pub. No. 2004/0052236 ("Hwang"), U.S. Patent Application Pub. No. 2003/0104808 ("Foschini"), U.S. Patent No. 5,956,332 ("Rasanen"), U.S. Patent Application Pub. No. 2004/0028121 ("Fitton"), U.S. Patent Application Pub. No. 2006/0166690 ("Nishio"), U.S. Patent Application Pub. No. 2004/0030979 ("Shany"), and U.S. Patent Application Pub. No. 2004/0101034 ("Ben-David"). Reconsideration is respectfully requested.

As discussed above, all of the independent claims have been amended to incorporate elements of claim 12 or elements similar to those of claim 12, and the Office Action indicated that claim 12 would be allowable if rewritten in independent form. At least for this reason, Applicants submit that the rejection has been overcome.

Conclusion

In view of the above, Applicants believe the pending application is in condition for allowance.

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Respectfully submitted,

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